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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,013	12/31/2003	Weinan Gao	CX03022USU (04CXT0006D)	5518
34408 7590 04/20/2007 THE ECLIPSE GROUP 10605 BALBOA BLVD., SUITE 300 GRANADA HILLS, CA 91344			EXAMINER VO, NGUYEN THANH	
			ART UNIT	PAPER NUMBER
			2618	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/751,013

Applicant(s)

GAO, WEINAN

Examiner

Nguyen Vo

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-13 and 15-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7,10-13,16-19,22-24,26-28 and 30 is/are rejected.
- 7) ☒ Claim(s) 4,8,9,15,20,21,25,29 and 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 3rd, 2007 has been entered.

Claim Objections

2. Claim 7 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In this case, claim 7 fails to further limit the subject matter of claim 1.

Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2618

4. Claims 1-2, 7, 12-13, 18-19, 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Herdey (7,043,206, cited by examiner) as evidenced by McGeehan (4,679,243, cited by examiner).

As to claim 1, Herdey discloses in figure 1 a DC offset correction system for a direct-conversion receiver that includes a baseband section that has an input (see the baseband input BB_in) and an output (see the baseband output BB_out), the DC offset correction system comprising a DC feedback correction servo-loop in signal communication with the baseband section 100 (see the DC feedback servo-loop including numerals 106, 108 and 110 in figure 1), wherein the DC feedback correction servo-loop is coupled to both the input and output of the baseband section 100; and an attenuator 110 within the DC feedback correction servo-loop (in this case, the filter 110 reads on the attenuator as claimed because the filter 110 attenuates the frequency components that are outside of its low pass band). See also column 2 line 49 to column 3 line 34. In addition, the filter 110 is capable of generating an attenuation coefficient K_{fb} as evidenced by McGeehan (see column 4 lines 19-21).

As to claims 2, 13, 19, 22, Herdey further discloses an integrator circuit 108 and a combiner circuit 102 as claimed.

As to claim 7, the attenuating characteristic of the low pass filter 110 reads on an attenuation coefficient as claimed.

As to claims 12, 18, the rejection to claim 1 as set forth above is herein incorporated. In addition, the attenuating characteristic of the low pass filter 110 reads on an attenuation coefficient as claimed.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5-6, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herdey.

As to claims 5-6, 16-17, Herdey fails to disclose that the integrator circuit 108 is a RC filter as in claim 5, or a non-RC filter as in claim 6. The examiner, however, takes Official Notice that such a RC filter or a non-RC filter is known in the art. In addition, those skilled in the art would have recognized that the above conventional integrator circuits could be used in the integrator circuit 108 in Herdey without changing the spirit and scope of Herdey's invention. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above conventional RC or non-RC filters to Herdey, in order to improve flexibility in designing the DC offset correction system in Herdey.

7. Claims 10-11, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herdey in view of Ruelke (6,459,889, cited by examiner).

As to claims 10-11, 26, Herdey fails to disclose a controller as claimed. Ruelke discloses a controller 162 in a DC feedback correction loop (see figure 1, column 5 lines 5-19). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Ruelke to Herdey, in order to

Art Unit: 2618

quickly and accurately correct the DC offset (as suggested by Ruelke at column 5 lines 5-19).

8. Claims 23-24, 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herdey in view of Ruelke as applied to claims 10, 26 above, and further in view of Hirano (6,871,055 B2, cited by examiner).

As to claims 23-24, 27-28, Herdey as modified by Ruelke fails to disclose adjusting the attenuator as claimed. Hirano discloses in figure 1 a controller 7 in a DC feedback correction loop adjusting an attenuator 24 (see column 6 lines 17-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Hirano to Herdey, in order to enhance the demodulation accuracy (as suggested by Hirano at column 4 lines 62-67).

9. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herdey in view of Hirano (6,871,055 B2, cited by examiner).

As to claim 30, Herdey fails to disclose adjusting the attenuator as claimed. Hirano discloses in figure 1 a controller 7 in a DC feedback correction loop adjusting an attenuator 24 (see column 6 lines 17-28). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Hirano to Herdey, in order to enhance the demodulation accuracy (as suggested by Hirano at column 4 lines 62-67).

Allowable Subject Matter

Art Unit: 2618

10. Claims 4, 8-9, 15, 20-21, 25, 29, 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 4, 8, 15, 20, the prior art of record fail to disclose or render obvious that the attenuator 110 (see Herdey) includes a resistor and a Sallen-Key RC filter for generating an attenuation coefficient as specified in the claims.

As to claims 25, 29, 31, the prior art of record fail to disclose or render obvious a high-pass transfer function as specified in the claims.

Response to Arguments

11. Applicant's arguments filed April 3rd, 2007 have been fully considered but they are not persuasive.

Claim rejections – 35 U.S.C. 102

Regarding claim 1, applicant argues that Herdey fails to disclose that the filter 110 is capable of generating an attenuation coefficient K_{fb} as claimed. The examiner, however, disagrees with applicant. The filter 110 in Herdey is capable of generating an attenuation coefficient K_{fb} as evidenced by McGeehan (see column 4 lines 19-21).

Worded differently, generating an attenuation coefficient is one of inherent characteristics of a filter.

Dependent claims 2, 7 are not allowed for the same reasons as set forth in claim 1 above.

Independent claims 12, 18 and their dependent claims are not allowed for the same reasons as set forth in claim 1 above.

Claim rejections – 35 U.S.C. 103

First of all, the examiner's comments regarding independent claim 1 as set forth above are herein incorporated.

Regarding claims 10-11, applicant argues that Ruelke fails to disclose a controller as claimed because the controller 162 in Ruelke communicates with an amplifier 164, not with an attenuator. The examiner, however, disagrees. It is believed that applicant attacks the references individually. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, as the controller 162 in a feedback path in Ruelke is provided to the feedback path in Herdey, the controller 162 would communicate with the attenuator 110 in Herdey.

For the foregoing reasons, the examiner contends that the rejections to claims are proper.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen Vo whose telephone number is (571) 272-7901. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nguyen Vo
Primary Examiner
Art Unit 2618

Nguyen Vo
4-11-2007